



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,746	02/25/2002	Herman Ehrenburg	EhrenburgCIP	3544

2655 7590 08/24/2004
DAVID PRESSMAN, ESQ.
1070 GREEN STREET
1402
SAN FRANCISCO, CA 941335418

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
----------	--------------

2674

5

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,746

Applicant(s)

EHRENBURG, HERMAN

Examiner

Kimnhung Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-28 is/are allowed.
- 6) ☒ Claim(s) 1-6, 13, 14 and 29-38 and 40-43 is/are rejected.
- 7) ☒ Claim(s) 7-12, 15-17 and 39 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2-4</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This Application has been examined. The claims 1-43 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 and 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mailman (US 6,232,956).

Regarding claim 1, Mailman discloses in figure 6, a method of enabling an operator to generate any one of a plurality of inputs (keys), comprising providing a manual input means having a plurality of digit-operated switches by which a human operator can generate said plurality of inputs by entering chords (see figure 14), each chord comprising a unique combination of said switches (see column 2, lines 33-44), each of said switches being positioned to be operated by a respective digit of said operator (see human fingers associates with the keys, see figure 6), and providing a legend presenting a plurality of first indicia representing said plurality of inputs (see figure 20), said first plurality of indicia selected from the class consisting of an inherent visual and tactile indicia, a first sub-plurality of said plurality of first indicia arranged in a plurality of groups (see figure 20), each of said groups representing a specific digit, each chord corresponding to a specific group of said groups comprising a specific switch of said

Art Unit: 2674

switches, said specific switch corresponding to the digit represented by said specific group, said groups arranged so that said operator can associate said groups directly with said respective digits, thereby mapping each first indicium of each of said groups to the digit represented by the group, whereby said operator can easily determine one or two of said digits corresponding to each indicium of said first plurality by visualizing the position of the indicium relative to said groups.

Regarding claim 2, Mailman discloses the method of Claim 1 wherein said first indicia are symbols found on a standard computer keyboard (see figure 20).

Regarding claim 3, Mailman discloses in figures 4-5 wherein each chord corresponding to a specific group of said groups of indicia comprises exactly one of said switches corresponding to a finger of a particular hand of said operator, the switch corresponding to the finger represented by the group, whereby said operator can easily determine the finger of said particular hand or the fingers of both hands corresponding to said first indicia in said groups (see column 4, lines 62-67, and column 5, lines 1-29).

Regarding claim 4, Mailman discloses wherein a plurality of said groups of indicia is labeled with respective second indicia, said second indicia indicating said digits represented by said groups, whereby said operator can determine said digits represented by said groups (see figure 20).

Art Unit: 2674

Regarding claim 13, Mailman discloses in figure 20, wherein said first indicia of a plurality of said groups are arranged in columns, each of said columns being one of said groups, whereby said operator can easily determine one of said digits corresponding to each of said first indicia of said columns by visualizing the position of the indicium relative to said columns.

Regarding claim 14, Mailman discloses, wherein each of said columns is arranged approximately in line with one of said switches, whereby said operator can easily determine said digits represented by said columns (see figure 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6, 29-38 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mailman (US 6,232,956) in view of Whitcroft (WO 98/19227).

Regarding claims 29, 40, Mailman discloses in figure 6, a method of enabling an operator to generate a plurality of inputs, comprising providing a manual input means having a plurality

Art Unit: 2674

of digit-operated switches (see keys) by which a human operator can generate said plurality of inputs by entering chords (see figure 14), each chord comprising a unique combination of switches, each of said switches operated by a specific digit of said operator, and providing a legend indicating a combination of indicia for each of said plurality of inputs, said indicia selected from the class consisting of colors and tactile indicia, each of said indicia representing a specific digit of said operator, whereby said operator can easily determine which chord to enter to generate one of said inputs. However, Mailman does not disclose the indicia selected from the class consisting of colors and tactile indicia. Whitcroft discloses in figure 1, the indicia selected from the class consisting of colors and tactile indicia (see computer keyboard having color coding a data-entry device (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the indicia selected from the class consisting of colors and tactile indicia as taught by Whitcroft into the system having multiple of digit-operated switches of Mailman because this would for providing for indicating each zone having different color for designating to the user and which finger is used each zone (see page 17, lines 8-9 and page 27, claim 21).

Regarding claims 5-6, Mailman does not disclose wherein the second indicia are color. Witcroft discloses the second indicia are color (see color coded at each zones, see abstract) as discussed above.

Regarding claims 30, 41, Mailman discloses, wherein said indicia representing said digits are on said switches assigned to said digits.

Art Unit: 2674

Regarding claims 31, 42, Mailman discloses wherein said switches are keys.

Regarding claims 32, 43, Whitcroft discloses, wherein said indicia are colors as discussed above.

Regarding claim 33, Mailman does not disclose, wherein said colors are pink, red, orange, yellow, white, black, green, blue, purple, and brown, corresponding respectively -to the left hand little finger, ring finger, middle finger, index finger, thumb, and the right hand thumb, index finger, middle finger, ring finger, and little finger, whereby said operator needs to recognize and remember only simple, well-known colors, and whereby said operator can be assisted .in memorizing said colors representing said digits by using common knowledge of the order of colors in the spectrum of light as found in a rainbow. Witcroft discloses said colors are pink, red, orange, yellow, white, black, green, blue, an inherent purple, and brown, corresponding respectively -to the left hand little finger, ring finger, middle finger, index finger, thumb, and the right hand thumb, index finger, middle finger, ring finger, and little finger, whereby said operator needs to recognize and remember only simple, well-known colors, and whereby said operator can be assisted .in memorizing said colors representing said digits by using common knowledge of the order of colors in the spectrum of light as found in a rainbow (see page 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the indicia selected from the class consisting of colors and tactile indicia as taught by Whitcroft into the system having multiple of digit-operated switches of Mailman because this would for providing for indicating each zone having different color for designating to the user and which finger is used each zone.

Art Unit: 2674

Regarding claims 34, Mailman discloses wherein said indicia form two easily distinguishable groups, one of said groups representing thumbs of said operator, and one of said groups representing fingers of said operator, said fingers being index, middle, ring, and little fingers, whereby said operator can instantly recognize said indicia representing said thumbs of said operator and said indicia representing said fingers of said operator (see figure 6).

Regarding claim 35, Mailman discloses, wherein said indicia form two easily distinguishable groups, each of said groups representing a particular hand of said operator, whereby said operator can instantly recognize said indicia representing said particular hand of said operator.

Regarding claim 36, Mailman discloses wherein a plurality of said combinations of indicia are arranged in groups, said combinations of each of said groups being a specific type of combination, whereby said operator can easily determine the specific type of each combination of said groups from the group of said combination (see figure 6).

Regarding claim 37, Mailman discloses, wherein a first group of indicia representing said inputs and a second group of said combinations of indicia are grouped in pairs, each of said pairs pairing one combination of said second group to one of said indicia of said first group, such that entering the chord corresponding to each pair of said pairs generates said input corresponding to

Art Unit: 2674

said pair, whereby said operator can determine which chord to enter to generate one of said inputs (see figure 14A).

Regarding claim 38, Mailman discloses wherein each of said combinations of indicia is arranged in at least one group, said group representing the class consisting of said fingers of: a particular hand of said operator and said thumbs of said operator, whereby said operator can easily determine said indicia of said combinations representing said fingers of said particular hand or said thumbs (see figure 14A).

Allowable Subject Matter

5. Claims 18-28 are allowed.
6. Claims 7-12, 15-17 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the cited art teaches or suggests that a method of enabling an operator to generate a plurality of inputs comprising, whereby each chord composed of each chord assigned to said letters and each chord assigned to said modifiers can be assigned to a modified letter, said modified letters can be readily input by said operator by entering a chord said operator composes of one chord assigned to said letters and one chord assigned to said modifiers, said combination can be a known combination of the modifier and the letter commonly used as input to known computer programs, accidental input of said modified letters during input of said letters is prevented, and

Art Unit: 2674

said chords involving only thumbs can be easily memorized by said operator as a specific type of chord assigned to said modifiers as claim 18, or wherein said first indicia of a plurality of said groups are arranged in an array of diagonal rows, each of said rows being one of said groups, whereby said operator can easily determine two of said digits corresponding to each of said first indicia of said array by visualizing the position of the indicium relative to said array as claim 7, or wherein said first indicia of said columns are arranged in rows, said first indicia of each of said rows corresponding to a specific type of chord, whereby said operator can easily determine the type of chord corresponding to said first indicia of said columns by knowing the row of the indicium as claim 15, or said combinations of each of said third groups being a specific type of combination, a first set of indicia representing said inputs and a second set of said combinations being grouped in pairs, each of said pairs pairing one combination of said second set to one of said indicia of said first set, such that entering the chord corresponding to each pair of said pairs generates said input corresponding to said pair, and each of said combinations being arranged in at least one fourth group, said group representing the class consisting of said fingers of a particular hand of said operator and said thumbs of said operator as claim 39.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Art Unit: 2674

Commissioner of Patents and Trademarks

Washington, D. C. 20231

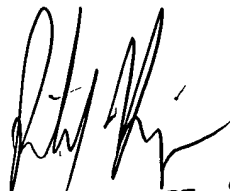
Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

Kimnhung Nguyen
August 20, 2004


RICHARD HJERPE 8/20/04
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600